

IN THE CLAIMS

Please amend the claims as follows:

1. – 4. (Cancelled)

5. (Currently Amended) A method for quenching a metallic material, comprising adjusting the pressure on the surface of a quenching oil to a ~~reduced pressure condition having a lower limit of 13-70~~ kPa, wherein said quenching oil comprises (A) a base oil having a kinematic viscosity at 40 °C of 40 mm²/s or more and (B) a vapor blanket breaking agent.

6. (Cancelled)

7. (Previously Presented) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.5 or less, in the test of heat treating oils in JIS K 2242.

8. (Previously Presented) The method according to claim 5, wherein the kinematic viscosity at 40 °C of said base oil is 40 to 300 mm²/s.

9. (Previously Presented) The method according to claim 5, wherein the quenching oil comprises said vapor blanket breaking agent in an amount of 5 % or more by mass based on said quenching oil.

10. (Previously Presented) The method according to claim 5, wherein the pressure on the surface of the quenching oil is adjusted to 15-70 kPa.

11. (Cancelled)

12. (Previously Presented) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.5 or less, in the test of heat treating oils in JIS K 2242, the kinematic viscosity at 40 °C of said base oil is 40 to 300 mm²/s, the quenching oil comprises said vapor blanket breaking agent in an amount of 5 % or more by mass based on said quenching oil, and the pressure on the surface of the quenching oil is adjusted to 15-70 kPa.

13. (Cancelled)

14. (Previously Presented) The method according to claim 9, wherein the quenching oil comprises said vapor blanket breaking agent in an amount of 30 % or less by mass based on said quenching oil.

15. (Previously Presented) The method according to claim 5, wherein said base oil is a base oil that has a characteristic time of 2.0 or less, in the test of heat treating oils in JIS K 2242.

16. (Previously Presented) The method according to claim 5, wherein said base oil has a flash point of 230 °C or more.

17. (Previously Presented) The method according to claim 5, wherein said base oil comprises 5% or less by mass of a light cut whose boiling point is below 400 °C.

18. (Previously Presented) The method according to claim 5, wherein said base oil comprises mineral oil.

19. (Previously Presented) The method according to claim 5, wherein said metallic material is steel.

20. (Previously Presented) The method according to claim 5, wherein quenching is performed in a vacuum furnace.

21. (Previously Presented) The method according to claim 5, wherein quenching is performed in a vacuum carburizing furnace.

22. (Cancelled)

23. (New) The method according to claim 5, wherein said quenching oil consists of said base oil having a kinematic viscosity at 40 °C of 40 mm²/s or more and said vapor blanket breaking agent.

24. (New) The method according to claim 5, further comprising contacting said metallic material with said quenching oil when the pressure on the surface of the quenching oil is 13-70 kPa.